

Strain	Genotype	Parent Strain	References
SC5314	Wild type		Gillum et al., 198 MOL. GEN. GENET. 179-82 (1984)
CAI4	Δ ura3::imm434/ Δ ura3::imm434	SC5314	Fonzi et al., 134 GENETICS 717-28 (1993)
*UnoPP-1	Δ ura3::imm434/ Δ ura3::imm434 Δ eno1::URA3/ENO1	CAI4	Postlethwait et al., 177 J. BACTERIOL. 1772-9 (1995)
CAC1	Δ ura3::imm434/ Δ ura3::imm434 CAP1/cap1::hisG-URA3-hisG	CAI4	This study
CAC1-1	Δ ura3::imm434/ Δ ura3::imm434 CAP1/cap1::hisG	CAC1	This study
CAC1-1A	Δ ura3::imm434/ Δ ura3::imm434 CAP1/cap1::hisG-URA3-hisG	CAC1-1	This study
CAC1-1A1	Δ ura3::imm434/ Δ ura3::imm434 cap1::hisG/cap1::hisG	CAC1-1A	This study
CACRE1	Δ ura3::imm434/ Δ ura3::imm434 CAP1/cap1::hisG ENO1/eno13	CAC1-1A1	This study

*a CAI4 derivative made Ura⁺ by disruption of an enolase gene with URA3

Figure 1

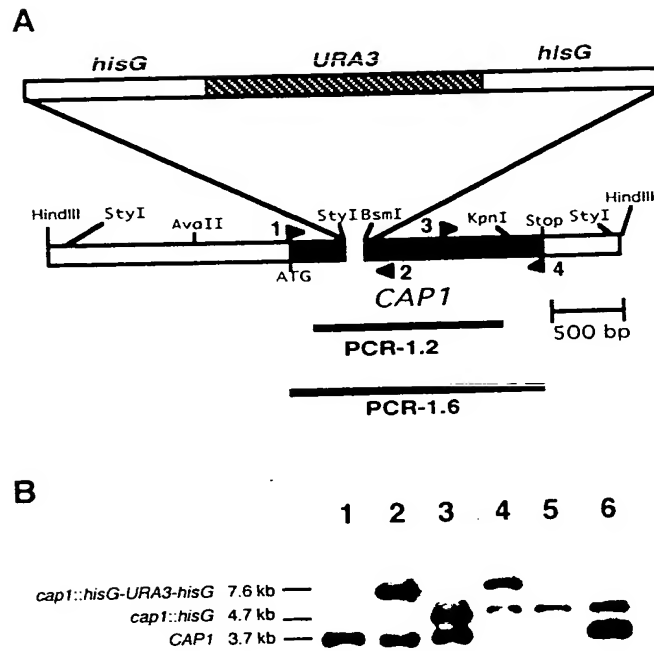


Figure 2



Figure 3

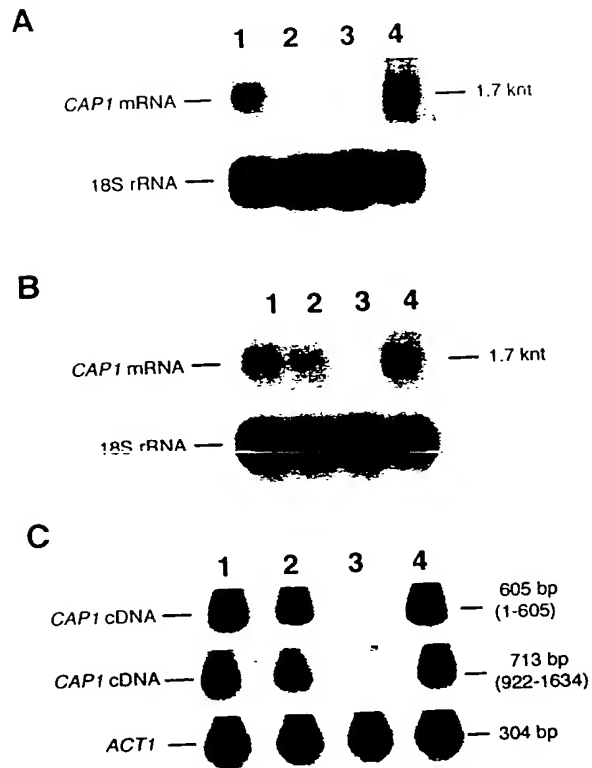


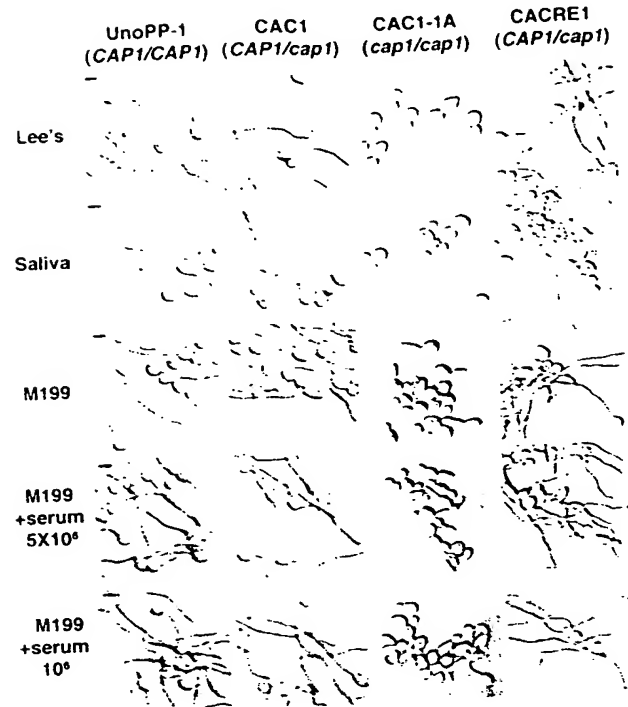
Figure 4

Strains	Doubling Time (hour)*					
	Rich media (YPD)			Minimal media (YNB)		
	27°C	30°C	37°C	27°C	30°C	37°C
UnoPP-1	2.2	1.6	2.0	2.9	2.9	3.0
CAC1	2.2	1.7	2.0	2.9	2.9	3.0
CAC1-1A	2.3	1.7	2.2	3.9	3.7	3.8
CACRE1	2.2	1.7	2.1	2.8	2.9	2.9

* Mean value from two independent experiments that differed by less than 20%

Figure 5

A



B

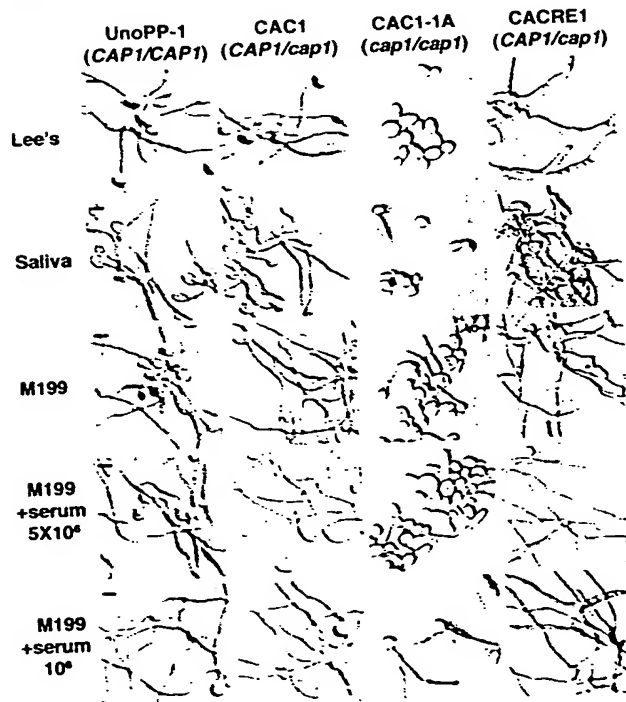
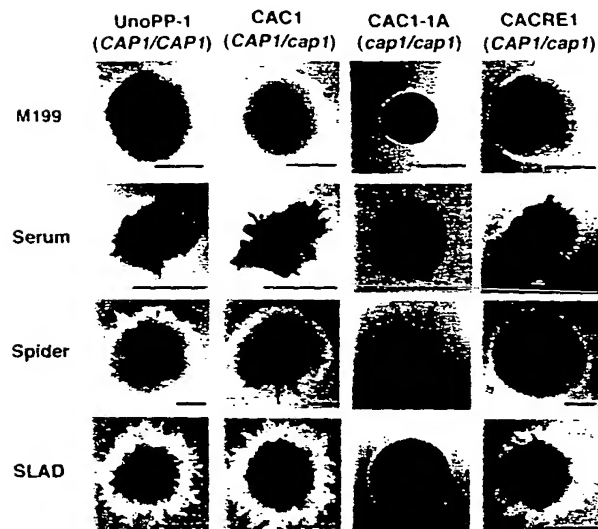


Figure 6

A



B

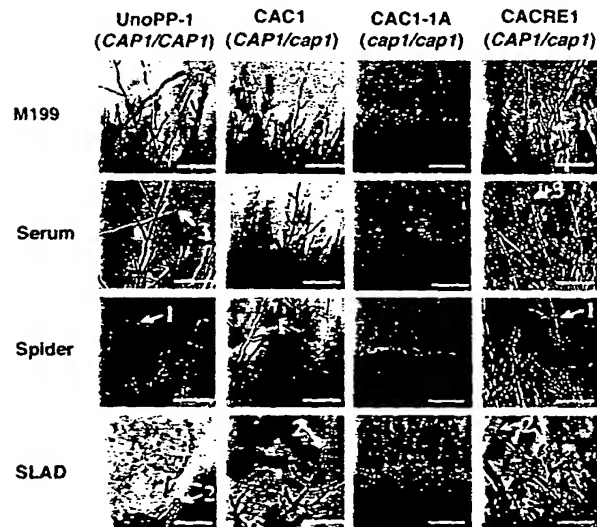


Figure 7

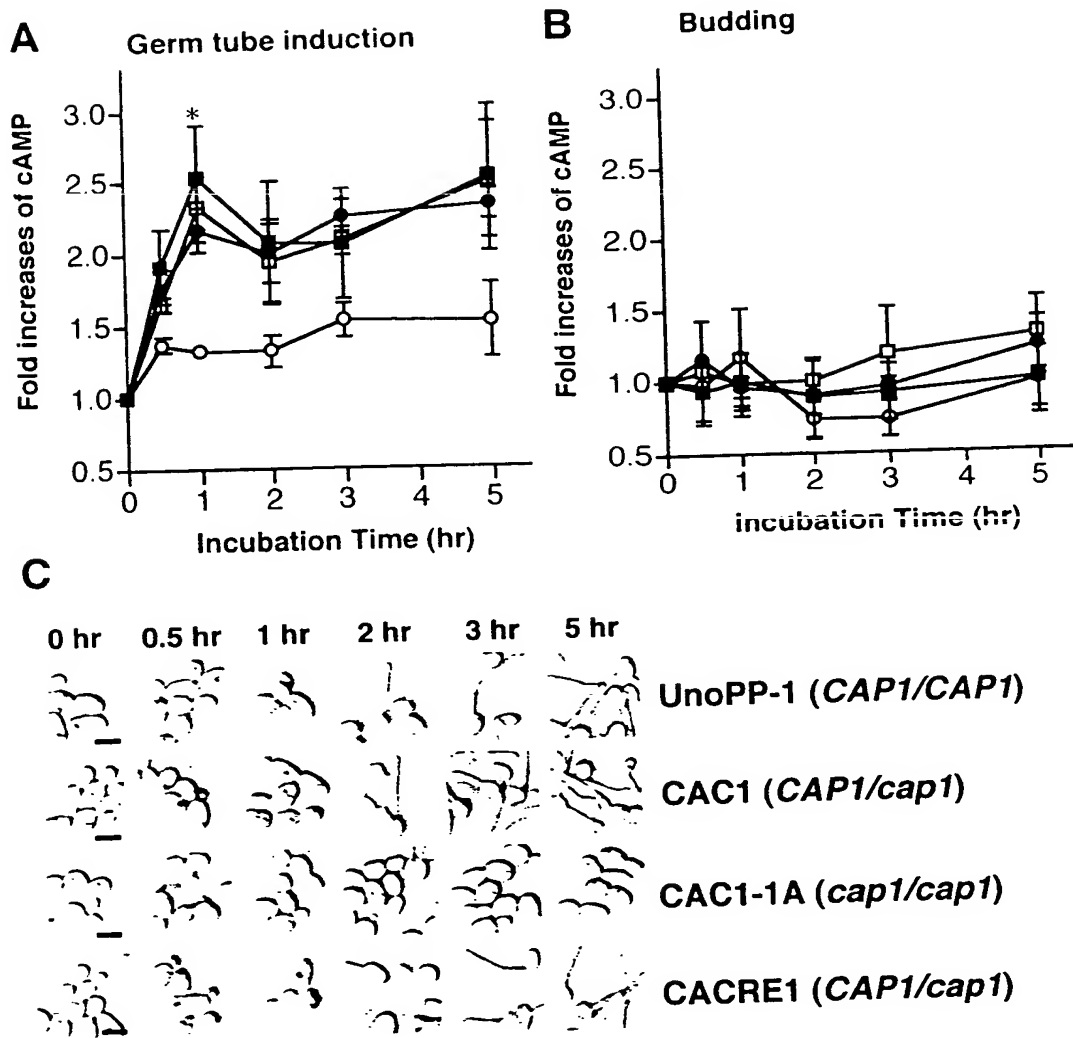
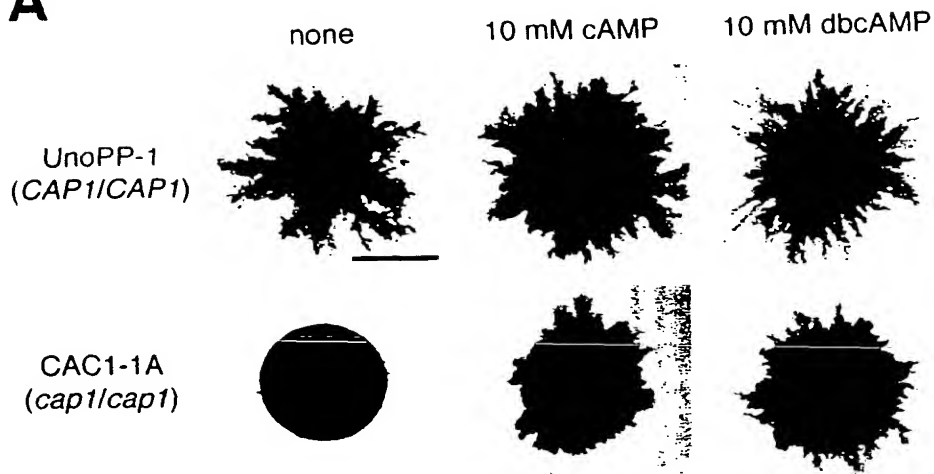


Figure 8

A



B

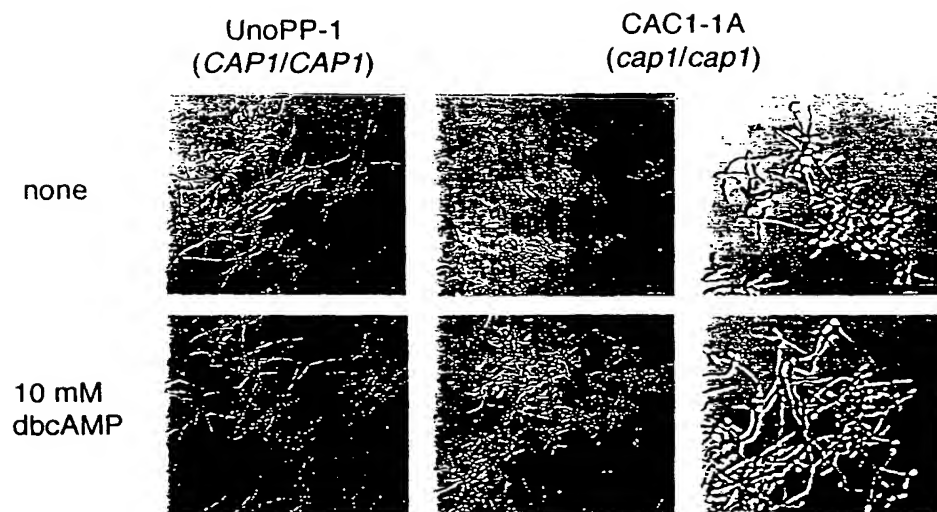


Figure 9

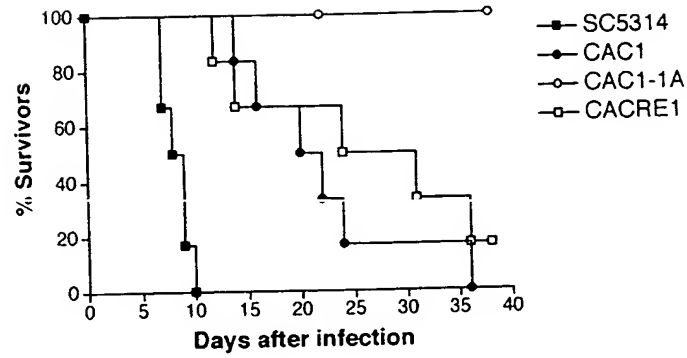


Figure 10

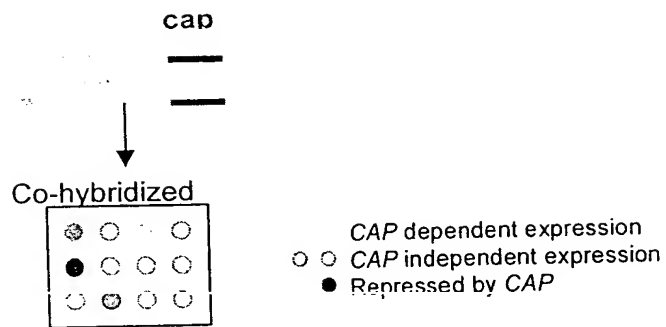


Figure 11

Attorney Dkt. No. 48544-00012
Inventor: Paula SUNDSTROM
METHODS FOR REGULATING BUD-
HYPHA TRANSITIONS AND cAMP LEVELS
IN CANDIDA ALBICANS
Sheet 12 of 23

Strain	Genotype	Parent Strain	References
SC5314	Wild type		(Gillum <i>et al.</i> , 1984)
CAI4	$\Delta ura3::imm434/\Delta ura3::imm434$	SC5314	(Fonzi and Irwin, 1993)
UnoPP-1	As CAI4, but $\Delta eno1::URA3/ENO1$	CAI4	(Postlethwait and Sundstrom, 1995)
CAC1-1A	As CAI4, but $cap1::hisG/cap1::hisG-URA3-hisG$	CAC1-1	(Bahn and Sundstrom, 2001)
CAC1-1A1	As CAI4, but $cap1::hisG/cap1::hisG$	CAC1-1A	(Bahn and Sundstrom, 2001)
CAC1-1A1E1	As CAC1-1A1, but $\Delta eno1::URA3/ENO1$	CAC1-1A1	This study
BPS1	As CAI4, but $PDE2/pde2::hisG-URA3-hisG$	CAI4	This study
BPS2	As CAI4, but $PDE2/pde2::hisG$	BPS1	This study
BPS3	As CAI4, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS2	This study
BPS4	As CAI4, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS2	This study
BPS7	As CAI4, but $pde2::hisG/pde2::hisG$	BPS4	This study
BPS13	As BPS2, but $\Delta eno1::URA3/ENO1$	BPS2	This study
BPS15	As BPS7, but $\Delta eno1::URA3/ENO1$	BPS7	This study
BPS9 (revertant)	As CAI4, but $PDE2/pde2::hisG \Delta eno1::URA3/ENO1$	BPS7	This study
BPS10 (revertant)	As CAI4, but $PDE2/PDE2 \Delta eno1::URA3/ENO1$	BPS7	This study
BPS11 (revertant)	As CAI4, but $PDE2/PDE2 \Delta eno1::URA3/ENO1$	BPS7	This study
BPS16	As CAC1-1A1, but $PDE2/pde2::hisG-URA3-hisG$	CAC1-1A1	This study
BPS17	As CAC1-1A1, but $PDE2/pde2::hisG$	BPS16	This study
BPS18	As CAC1-1A1, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS17	This study
BPS19	As CAC1-1A1, but $pde2::hisG-URA3-hisG/pde2::hisG$	BPS17	This study
BPS20	As CAC1-1A1, but $pde2::hisG/pde2::hisG$	BPS18	This study
BPS24	As BPS17, but $\Delta eno1::URA3/ENO1$	BPS17	This study
BPS27	As BPS20, but $\Delta eno1::URA3/ENO1$	BPS20	This study
BPS22 (revertant)	As CAC1-1A1, but $PDE2/pde2::hisG \Delta eno1::URA3/ENO1$	BPS20	This study
EGFP3	As CAI4, but $\Delta eno1::ENOp-GFP-URA3/ENO1$	CAI4	(Staab <i>et al.</i> , unpublished)
EPDE2-3	As CAI4, but $\Delta eno1::ENOp-PDE2-URA3/ENO1$	CAI4	This study

Figure 12

Attorney Dkt. No. 48544-00012
Inventor: Paula SUNDSTROM
METHODS FOR REGULATING BUD-
HYPHA TRANSITIONS AND cAMP LEVELS
IN CANDIDA ALBICANS
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CaPDE2	335	N	P	I	C	T	L	G	L	V	A	A	L	G	H	D	V	G	H	P	G	T	T	N	D	R	M	I	K	F	S	A	P	T	A	L	T	M	372		
ScPDE2	288	N	P	V	Q	T	L	L	C	M	A	A	I	G	H	D	V	G	H	P	G	T	T	N	Q	L	C	N	C	E	S	E	V	A	Q	N	F		325		
HuPDE2A3	682	E	D	I	E	T	F	A	L	F	I	S	C	M	C	H	D	L	D	H	R	G	T	N	S	F	Q	V	A	S	K	S	V	L	A	L	V	719			
CaPDE2	373	N	D	R	-	S	V	L	E	S	Y	H	A	S	I	F	F	I	N	K	V	L	R	I	C	W	P	O	L	I	T	C	T	I	E	E	K	S	E	L	409
ScPDE2	326	K	N	V	-	S	I	L	E	N	F	H	R	E	L	F	Q	-	Q	L	E	S	E	H	W	P	-	-	L	K	L	S	R	S	K	K	-	-	357		
HuPDE2A3	720	S	S	E	G	S	V	M	E	R	H	F	A	Q	A	T	-	A	I	L	N	T	H	G	C	N	-	I	F	D	H	F	S	R	K	D	Y	Q	755		
CaPDE2	410	T	I	R	S	L	L	I	S	S	L	A	T	D	M	G	E	H	N	E	Y	V	N	R	U	K	S	F	K	T	H	N	E	L	M	H	D	447			
ScPDE2	358	-	-	F	D	I	S	E	A	L	A	T	D	M	A	L	H	S	Q	Y	E	D	R	L	N	R	E	N	P	M	K	O	I	T	-	-	390				
HuPDE2A3	756	R	M	L	D	L	M	R	D	T	I	L	A	T	D	L	A	H	H	L	R	I	F	K	D	S	Q	K	M	A	E	V	G	Y	D	R	N	K	793		
CaPDE2	448	N	T	V	K	I	T	S	A	L	L	R	C	A	O	I	S	N	V	T	R	P	L	R	V	S	A	Q	W	A	M	V	L	S	R	E	F	484			
ScPDE2	391	-	-	-	-	L	T	S	L	I	L	A	A	D	N	S	N	V	T	R	T	L	S	L	S	A	R	W	A	Y	D	I	T	L	E	F	422				
HuPDE2A3	794	Q	H	R	I	L	L	C	L	M	T	S	C	D	L	S	D	Q	T	K	G	W	K	T	R	K	T	A	E	L	Y	K	E	F	830						

Figure 13

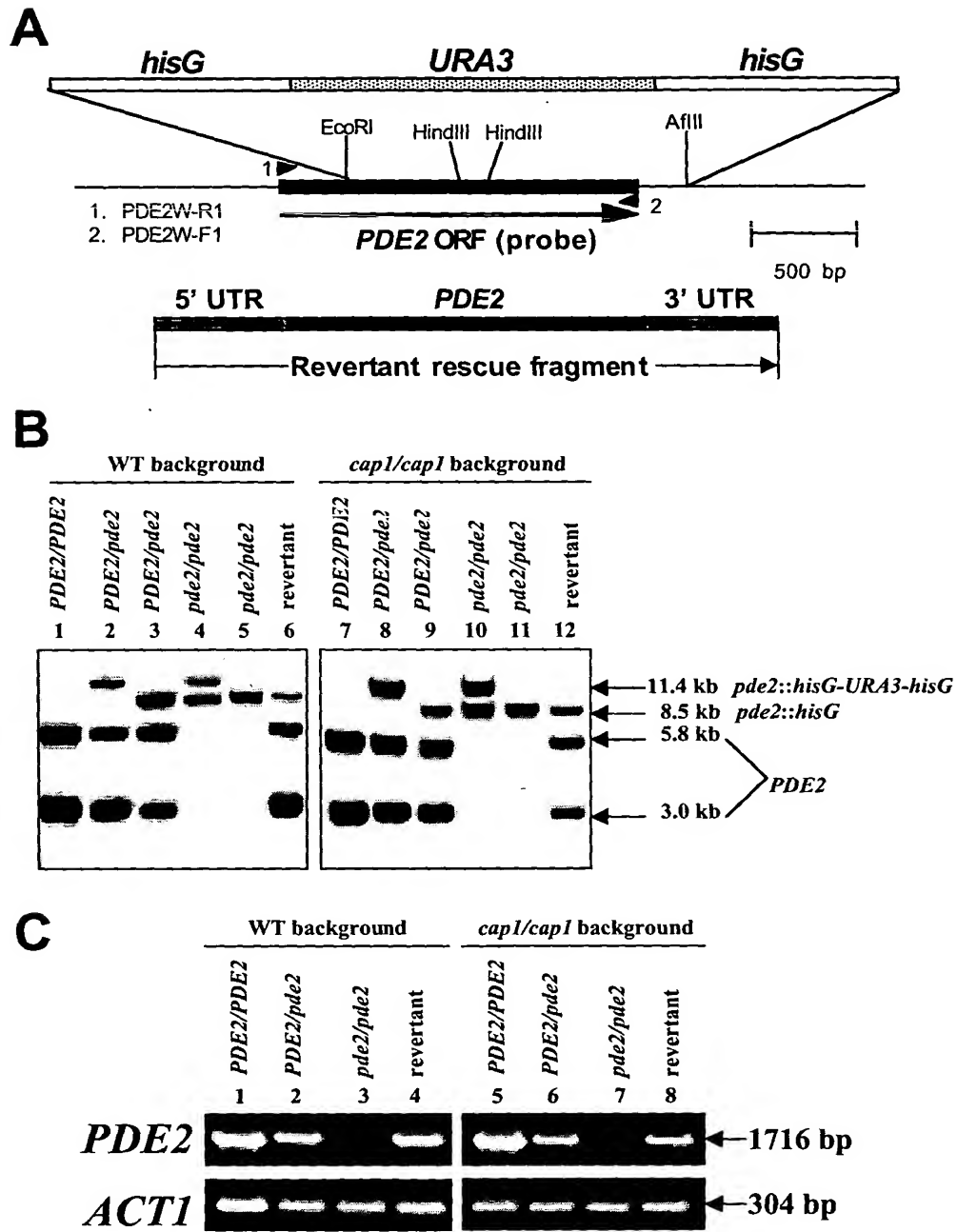


Figure 14

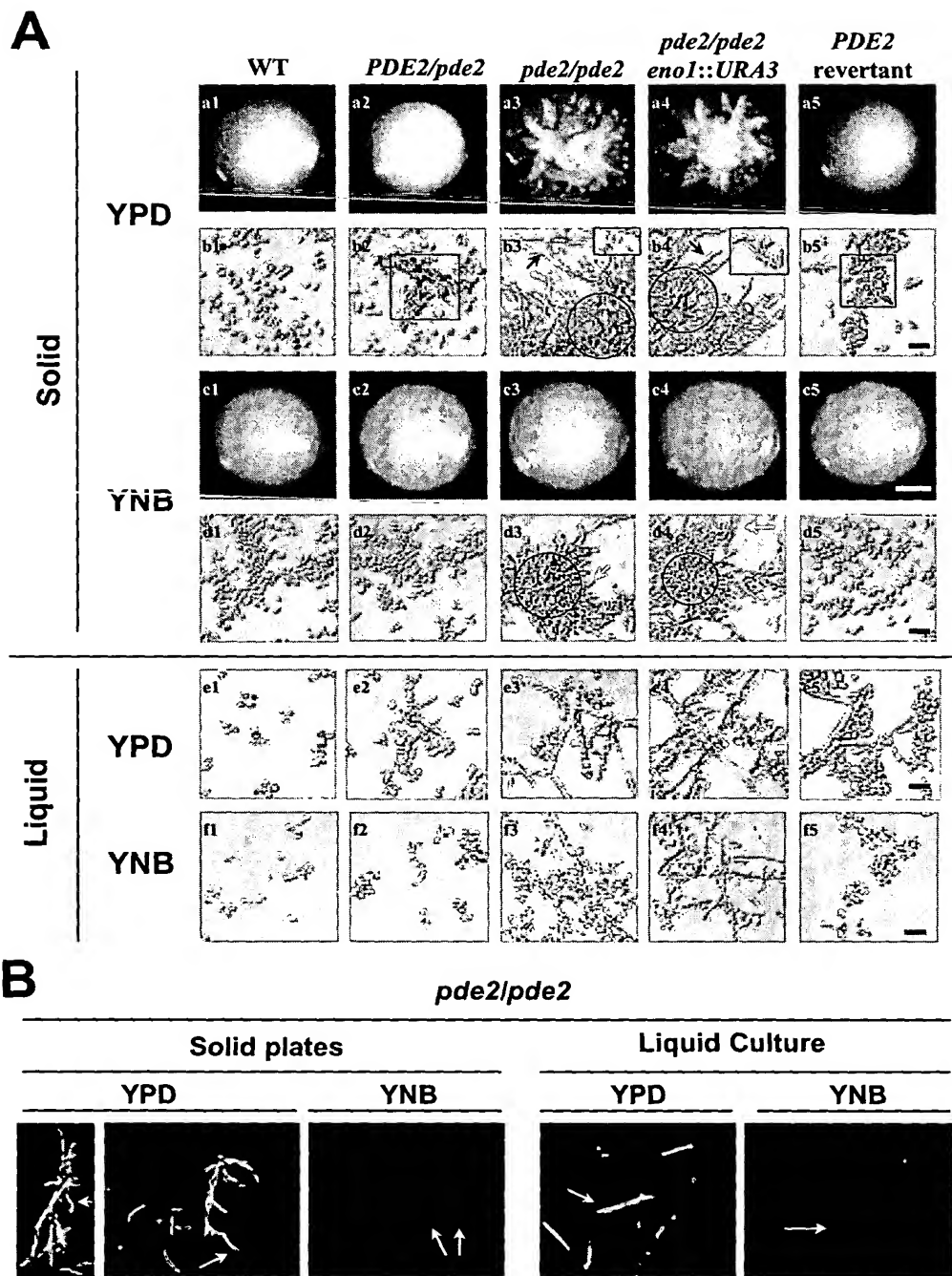


Figure 15

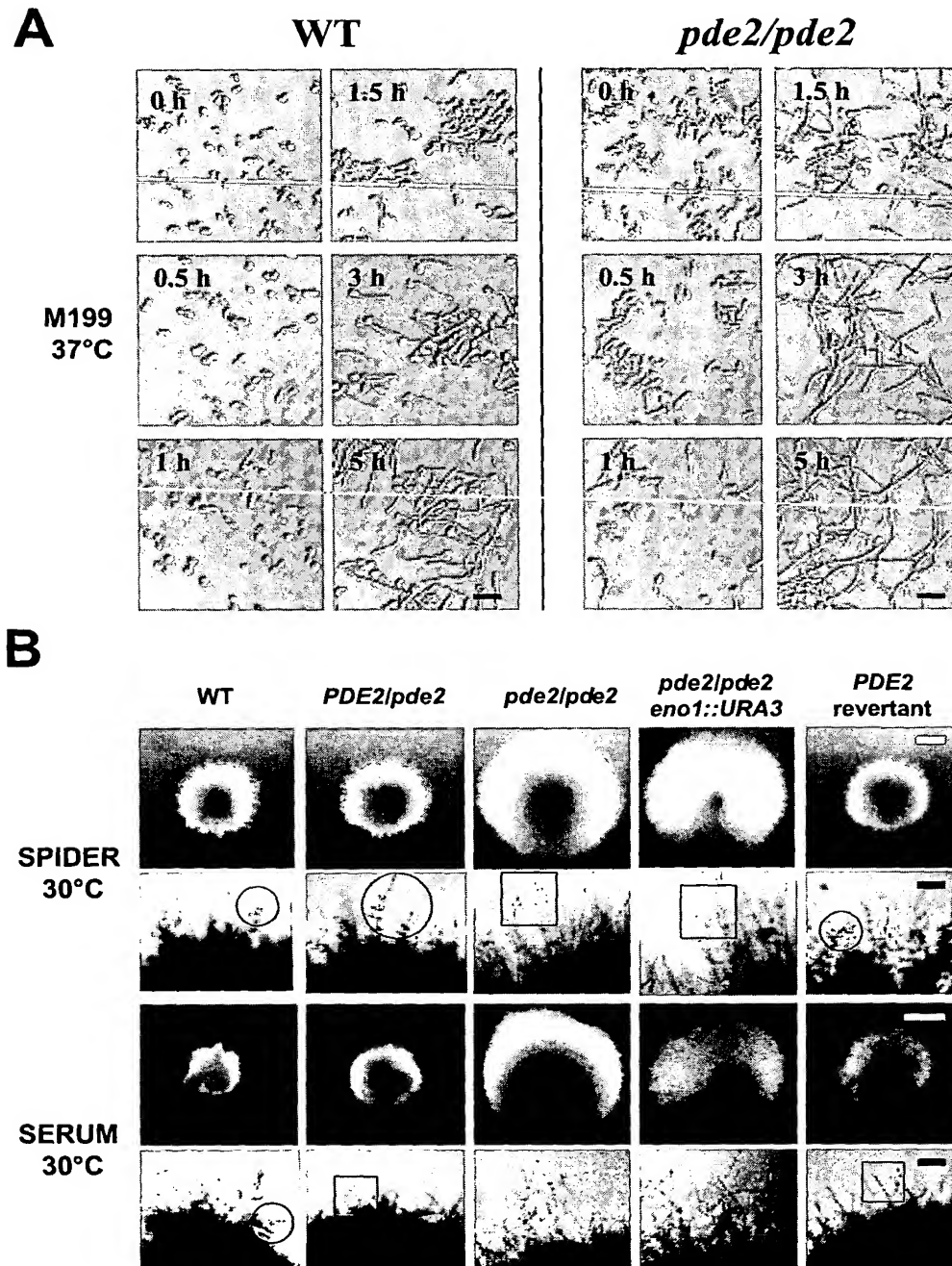


Figure 16

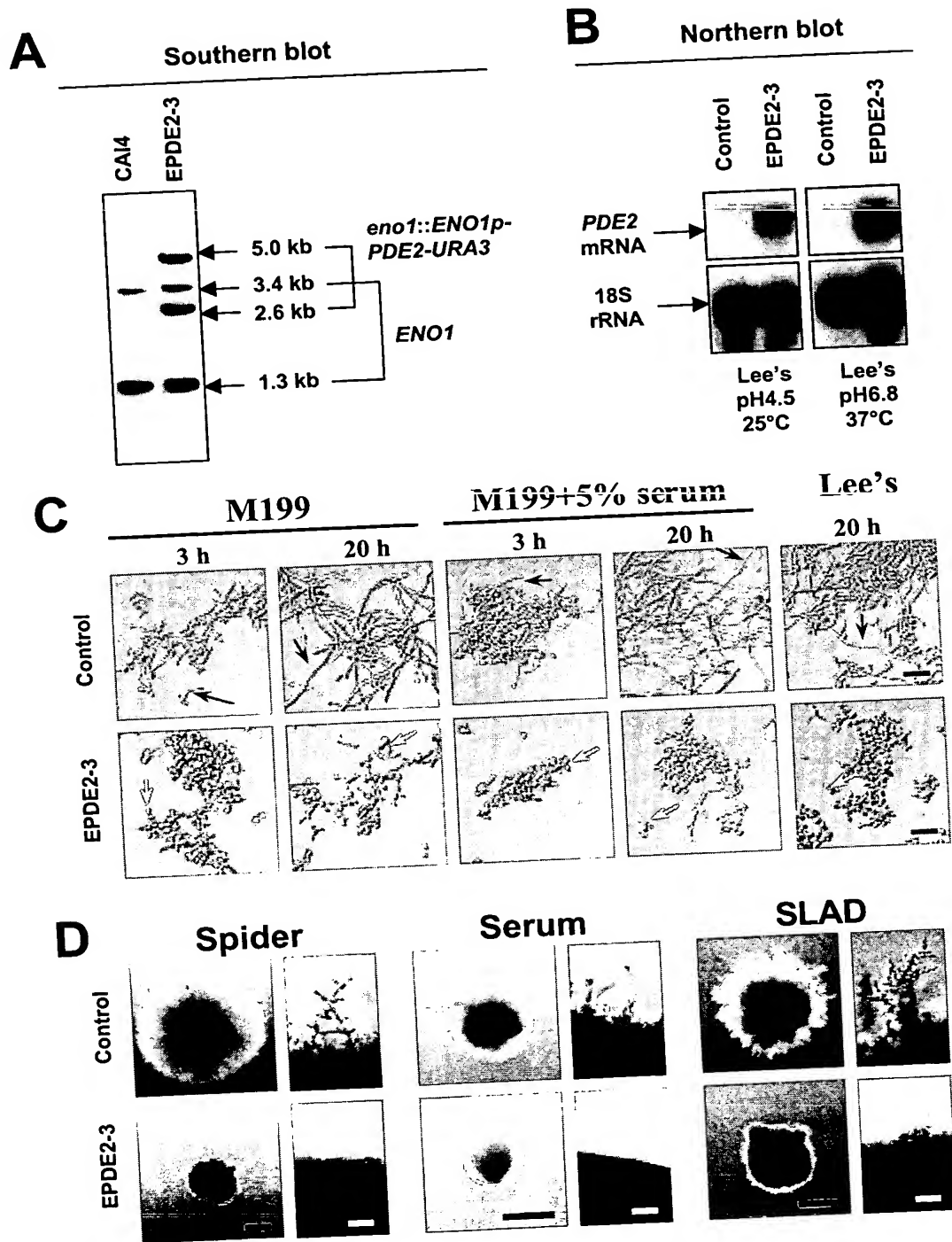


Figure 17

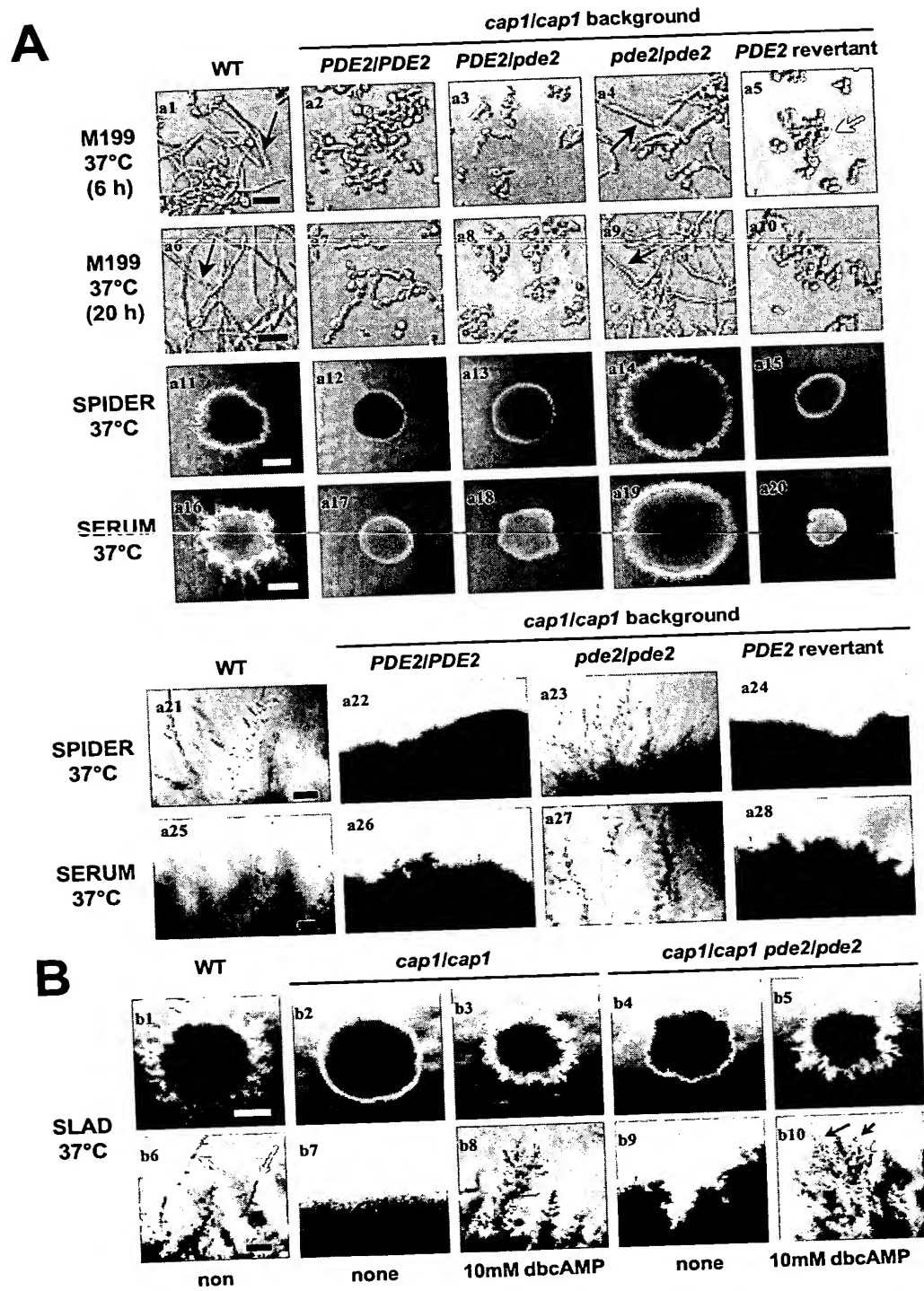
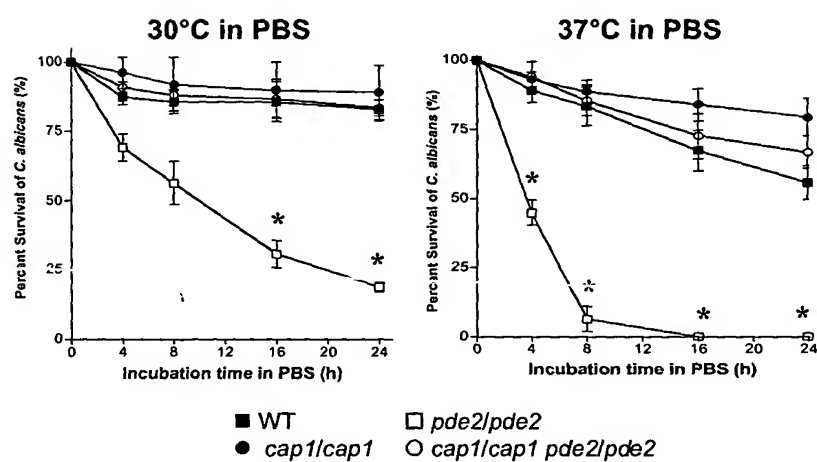


Figure 18

A



B

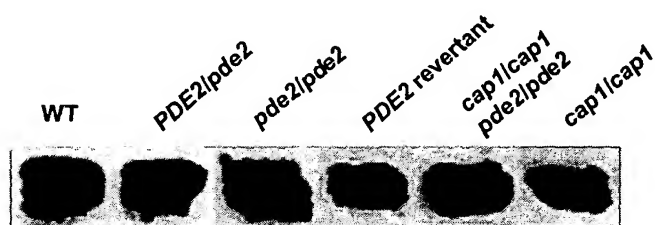


Figure 19

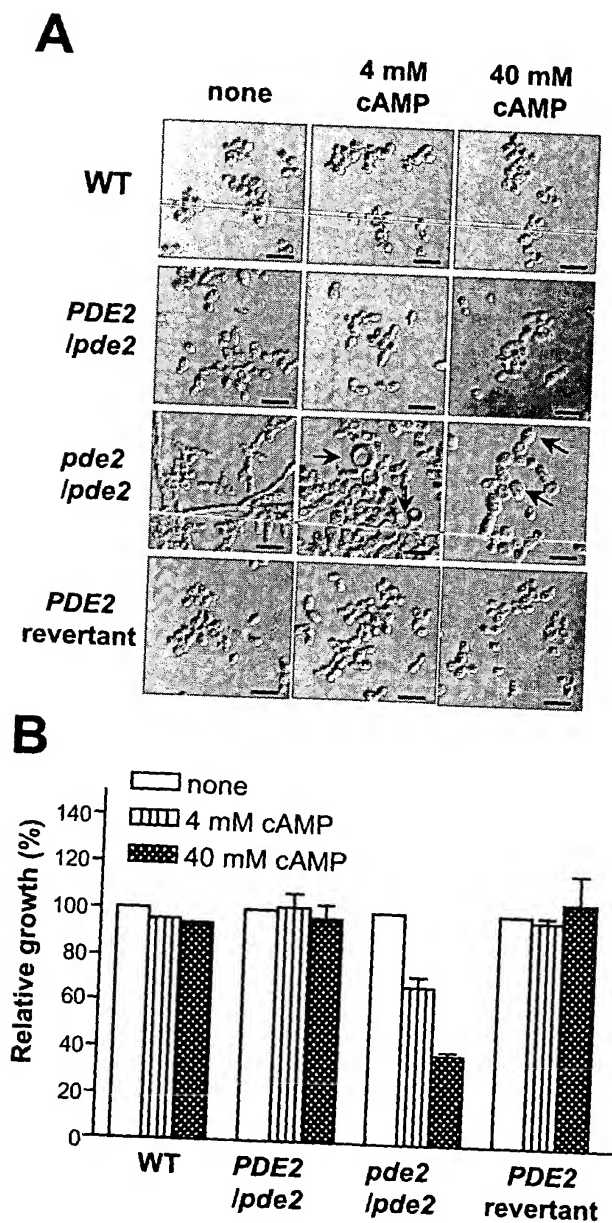
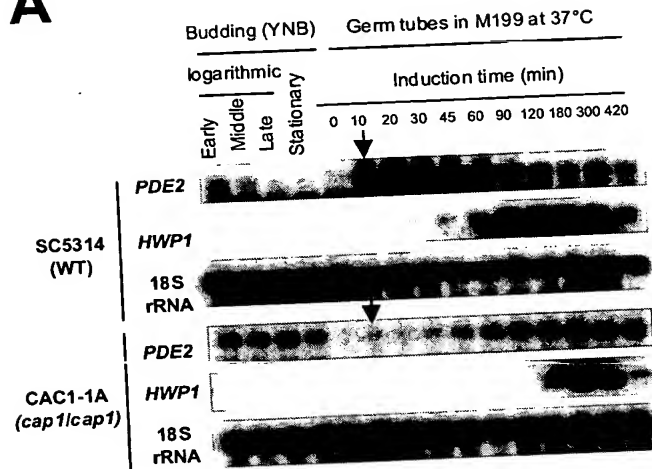


Figure 20

A



B

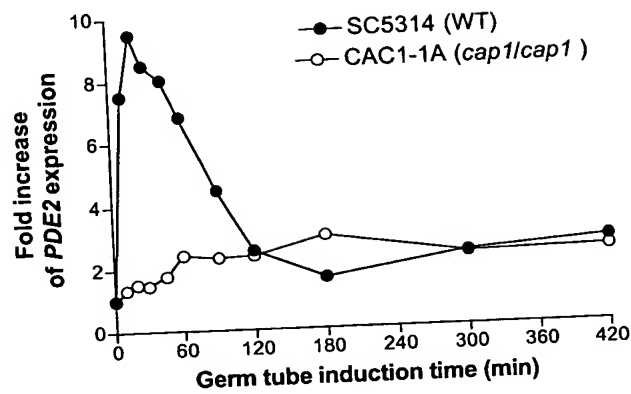


Figure 21

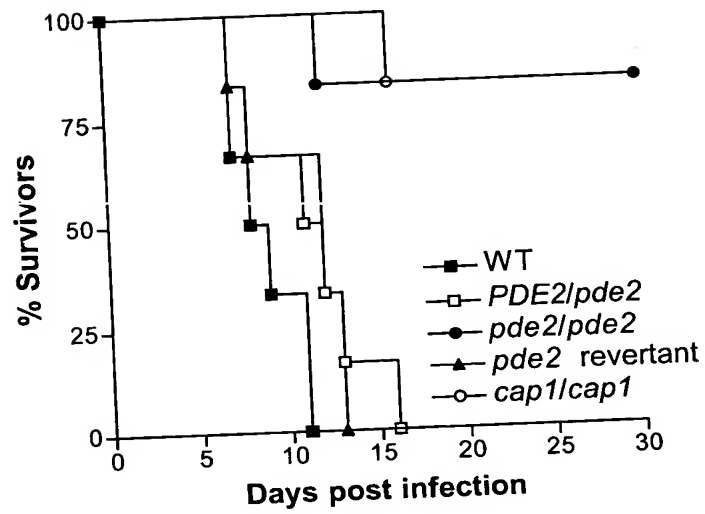


Figure 22

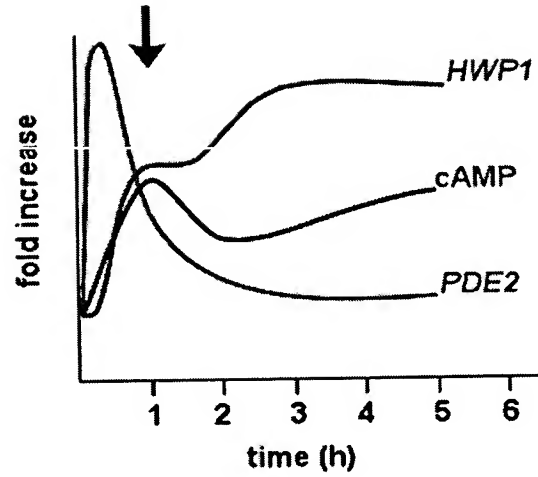


Figure 23